



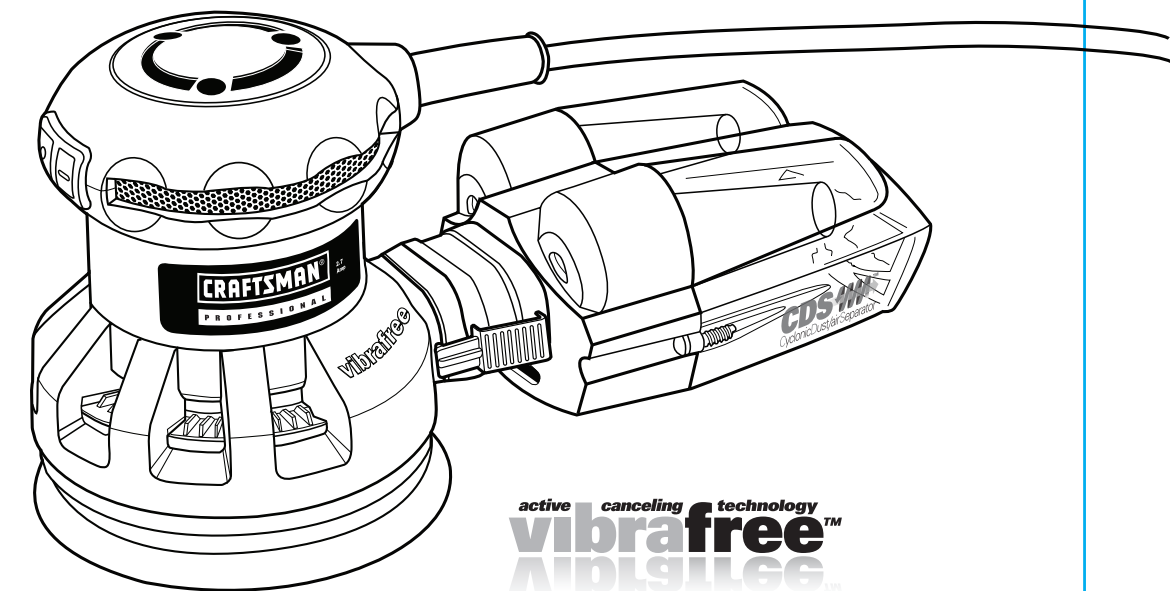
Operator's Manual



2.7 Amp/5-in. Diameter Cyclonic Dust-Air Separator (CDS) Collection System

Random Orbital Sander

Model No. 172.259270



CAUTION: Read, understand and follow all Safety Rules and Operating Instructions in this manual before using this product.

Sears Brands Management Corporation,
Hoffman Estates, IL 60179 U.S.A.
www.sears.com



Double Insulated

- WARRANTY
- SAFETY
- UNPACKING
- DESCRIPTION
- ASSEMBLY
- OPERATION
- MAINTENANCE

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CRAFTSMAN PROFESSIONAL ONE YEAR LIMITED WARRANTY

FOR ONE YEAR from the date of purchase, this product is warranted against any defects in material or workmanship. With proof of purchase, a defective product will be replaced free of charge.

For warranty coverage details to obtain free replacement, visit the web site: www.craftsman.com

This warranty does not cover the sanding discs, which are expendable parts that can wear out from normal use within the warranty period.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Sears Brands Management Corporation, Hoffman Estates, IL 60179

SAVE THESE INSTRUCTIONS!
READ ALL INSTRUCTIONS!

⚠ WARNING: Some dust created by using power tools contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

SAFETY SYMBOLS

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols and the explanations with them deserve your careful attention and understanding. The symbol warnings do not, by themselves, eliminate any danger. The instructions and warnings they give are no substitutes for proper accident prevention measures.

⚠ WARNING: Be sure to read and understand all safety instructions in this manual, including all safety alert symbols such as “**DANGER**,” “**WARNING**,” and “**CAUTION**” before using this random orbital sander. Failure to follow all instructions listed in this manual may result in electric shock, fire and/or serious personal injury.

SYMBOL SIGNAL MEANING

⚠ SAFETY ALERT SYMBOL: Indicates **DANGER, WARNING, OR CAUTION.** May be used in conjunction with other symbols or pictographs.

⚠ DANGER: Indicates a hazardous situation which, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations. Always follow the safety precautions to reduce the risk of fire, electric shock, and personal injury.

⚠ WARNING: Indicates a hazardous situation which, if not avoided, could result in death or serious injury. Always follow the safety precautions to reduce the risk of fire, electric shock, and personal injury.

⚠ CAUTION: Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

Damage Prevention and Information Messages

These inform the user of important information and/or instructions that could lead to equipment or other property damage if they are not followed. Each message is preceded by the word “NOTE,” as in the example below:

NOTE: Equipment and/or property damage may result if these instructions are not followed.



⚠ WARNING: To ensure safety and reliability, all repairs should be performed by a qualified service technician.

⚠ WARNING: The operation of any power tools can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning power tool operation, always wear safety goggles or safety glasses with side shield and a full face shield when needed. We recommend a Wide

Vision Safety Mask for use over eyeglasses or standard safety glasses with side shields. Always use eye protection which is marked to comply with ANSI Z87.1 shields.

SAFETY INSTRUCTIONS

⚠ WARNING: Read all safety warnings and instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference. The term power tool in the warnings refers to your electric (corded) power tool or battery-operated (cordless) power tool.

WORK AREA SAFETY

1. **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
2. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
3. **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.
4. **Make your workshop childproof** with padlocks and master switches. Lock tools away when not in use.
5. **MAKE SURE the work area has ample lighting** so you can see the work and that there are no obstructions that will interfere with safe operation **BEFORE** using your power tool.

PERSONAL SAFETY

1. **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
2. **Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
3. **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.
4. **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
5. **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
6. **Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewelry or long hair can be caught in moving parts.
7. **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.

SAFETY INSTRUCTIONS cont.

TOOL USE AND CARE SAFETY

⚠ WARNING: BE SURE to read and understand all instructions before operating this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious personal injury.

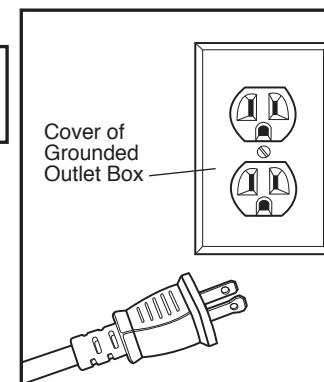
1. **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
2. **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
3. **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
4. **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
5. **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
6. **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
7. **Use the power tool, accessories and tool bits etc., in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.
8. **Use clamps or another practical way to secure and support the workpiece to a stable platform.**
9. **Holding the work by hand or against your body leaves it unstable and may lead to loss of control.**

⚠ WARNING: Empty dust bag before storage to help prevent possible fire hazard, especially when resin coating or linseed oil finishes have been sanded.

ELECTRICAL SAFETY

⚠ WARNING: Do not permit fingers to touch the terminals of plug when installing or removing the plug from the outlet.

1. **Double insulated tools are equipped with a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way.** If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a **qualified electrician** to install a polarized outlet. Do not change the plug in any way.



SAFETY INSTRUCTIONS cont.

ELECTRICAL SAFETY

⚠ WARNING: Do not permit fingers to touch the terminals of plug when installing or removing the plug from the outlet.

2. **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with grounded power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.

⚠ WARNING: Double insulation **DOES NOT** take the place of normal safety precautions when operating this tool.

3. **Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is grounded.
4. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
5. **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
6. **When operating a power tool outdoors, use an extension cord suitable for outdoor use marked “W-A” or “W”.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
7. **If operating a power tool in a damp location is unavoidable, use a Ground Fault Circuit Interrupter (GFCI) protected supply.** Use of a GFCI reduces the risk of electric shock.

EXTENSION CORDS

USE PROPER EXTENSION CORD. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table 1 shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.

Table 1: Minimum Gage for Cord

Rating Ampere		Volts	Total cord length (in feet)			
		120V	25	50	100	150
More Than	Not More Than	AWG				
0	6		18	16	16	14
6	10		18	16	14	12
10	12		16	16	14	12
12	16		14	12	Not recommended	

⚠ CAUTION: Keep the extension cord clear of the working area. Position the cord so that it will not get caught on lumber, tools or other obstructions while you are working with a power tool.

⚠ WARNING: Check extension cords before each use. If damaged replace immediately. Never use tool with a damaged cord since touching the damaged area could cause electrical shock, resulting in serious injury.

SAFETY INSTRUCTIONS cont.

SAFETY SYMBOLS FOR YOUR TOOL

The label on your tool may include the following symbols.

- V.....Volts
A.....Amps
Hz.....Hertz
W.....Watts
min.....Minutes
~.....Alternating current
=.....Direct current
no.....No-load speed
□.....Class II construction, Double Insulated
RPM.....Revolutions per minute
SPM.....Strokes per minute
OPM.....Orbits per minute
⚠.....Indicates danger, warning or caution.
It means attention! Your safety is involved.

SERVICE SAFETY

1. **If any part of this tool is missing or should break, bend, or fail in any way; or should any electrical component fail to perform properly: SHUT OFF** the power switch and remove the tool’s plug from the power source and have the missing, damaged or failed parts replaced **BEFORE** resuming operation.
2. **Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.
3. **If the replacement of the supply cord is necessary, this has to be done by the manufacturer or his agent in order to avoid a safety hazard.**

SAFETY RULES FOR POWER SANDERS

1. **HOLD TOOL by insulated gripping surfaces** when sanding where tool may contact hidden wiring, such as walls, floors, or its own power cord. Contact with a “live” wire will make exposed metals parts of the tool “live” and shock the operator.
2. **INSPECT FOR AND REMOVE** all nails, screws, staples or any embedded pieces of metal from surface to be sanded. These protrusions could damage the sandpaper, the cushion of the sander and cause loss of control. Following this rule will reduce the risk of serious personal injury and damage to the sander.
3. **NEVER use this or any power sander for wet sanding or liquid polishing.** Failure to follow this rule will increase the risk of electric shock.
4. **ALWAYS clamp the workpiece** securely so it will not move under the sander. Unsecured work could be thrown towards the operator, causing injury.
5. **DO NOT force the sander.** The weight of the sander supplies adequate pressure. Let the sander and the grit on the sandpaper do the work.
6. **DO NOT sand in any one place for too long.** The sander’s rapid action may remove too much material and make the surface uneven.

SAFETY INSTRUCTIONS cont.

⚠ WARNING: Some dust created by using power tools contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks and cement and other masonry products.
- Arsenic and chromium, from chemically treated lumber.

Your risk from these exposures varies, depending upon how often you do this type of work. To reduce your exposure to these chemicals:

- Work in a well-ventilated area.
- Work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

Avoid prolonged contact with dust from power sanding, sawing, grinding, drilling and other construction activities. Wear protective clothing and wash exposed areas with soap and water. Allowing dust to get into your mouth, eyes, or lay on the skin may promote absorption of harmful chemicals.

⚠ WARNING: Use of this tool can generate and/or disburse dust, which may cause serious and permanent respiratory or other injury. Always use NIOSH/OSHA approved respiratory protection appropriate for the dust exposure. Direct particles away from face and body.

⚠ WARNING: Collected sanding dust from sanding surface coatings (polyurethane, linseed oil, etc.) can self-ignite in sander dust box or elsewhere and cause fire. To reduce risk, empty dust box frequently and strictly follow sander manual and coating manufacturer’s instructions.

⚠ CAUTION: When working on metal surfaces, **DO NOT** use the dust box or a vacuum cleaner because sparks are generated. Wear safety glasses and a dust mask. Due to the danger of fire, do not use your sander to sand magnesium surfaces. Do not use for wet sanding.

SANDING PAINTS

SANDING LEAD BASED PAINT is **NOT RECOMMENDED** due to the difficulty of controlling the contaminated dust. The greatest danger of lead poisoning is to children and pregnant women.

Since it is difficult to identify whether or not a paint contains lead without a chemical analysis, we recommend the following precautions when sanding any paint:

- **NO** children or pregnant women should enter the work area where the paint sanding is being done until all clean up is completed.
- A dust mask or respirator should be worn by all persons entering the work area. The filter should be replaced daily, or whenever (if) the wearer has difficulty breathing.

SAFETY INSTRUCTIONS cont.

- NOTE:** Only those dust masks suitable for working with lead paint dust and fumes should be used. Ordinary painting masks do not offer this protection. See your local hardware dealer for the proper (NIOSH approved) mask.
- **NO EATING, DRINKING OR SMOKING** should be done in the work area to prevent ingesting contaminated paint particles. Workers should wash and clean up **BEFORE** eating, drinking or smoking. Articles of food, drink, or smoking should **NOT** be left in the work area where contaminated dust would settle on them.
 - Paint should be removed in such a manner as to minimize the amount of dust generated.
 - Areas where paint removal is occurring should be sealed with plastic sheeting of 4 mils thickness.
 - Sanding should be done in a manner to reduce tracking of paint dust outside the work area.
 - All surfaces in the work area should be vacuumed and thoroughly cleaned daily for the duration of the sanding project. Vacuum filter bags should be changed frequently.
 - Plastic drop cloths should be gathered up and disposed of along with any dust chips or other removal debris. They should be placed in sealed refuse receptacles and disposed of through regular trash pick-up procedures. During clean up, children and pregnant women should be **KEPT AWAY** from the immediate work area.
 - All toys, washable furniture and utensils used by children should be washed thoroughly before being used again.

ADDITIONAL RULES FOR SAFE OPERATION

⚠ WARNING: BE SURE to read and understand all instructions.
Failure to follow all instructions listed below may result in electric shock, fire and/or serious personal injury.

1. Harmful/toxic dusts will arise from sanding e.g. lead painted surfaces, woods and metals. Contact with or inhalation of these dusts can endanger the health of operator and bystanders. Always use eye glasses and dust mask.
2. Hearing protection should be worn when using the sander.
3. **Always wear safety glasses or eye shields when using the sander. Everyday eyeglasses have only impact-resistant lenses; they are not safety glasses.** Following this rule will reduce the risk of serious personal injury.
4. Remove the plug from the socket before carrying out any adjustment, servicing or maintenance.
5. Fully unwind cable drum extensions to avoid potential overheating.
6. When an extension cable is required you must ensure it has the correct ampere rating for your power tool and is in a safe electrical condition.
7. Ensure your mains supply voltage is same as indicated on the rating plate.
8. Your tool is double insulated for additional protection against a possible electrical insulation failure within the tool.
9. Always check walls, floors and ceilings to avoid hidden power cables and pipes.
10. After long working periods external metal parts and accessories could be hot.
11. If possible, ensure the work-piece is firmly clamped to prevent movement.

SAFETY INSTRUCTIONS cont.

ADDITIONAL RULES FOR SAFE OPERATION cont.

- 12. Your sander is a hand held tool, do not clamp your sander.
- 13. Before sanding, check the area is free of nails, screws, etc.
- 14. Never stop the sander by applying a force to the base plate.
- 15. Only use paper in good condition. Do not use torn or worn paper.
- 16. Do not sand material containing asbestos due to a health risk.
- 17. Do not sand lead based paint due to the risk of lead poisoning.
- 18. Do not eat or drink in the working area of the sander.
- 19. Do not allow people to enter the working area without wearing a dust mask.
- 20. Where possible, seal off the working area to contain the dust for later removal.
- 21. Your tool is designed for dry sanding only, not wet sanding.
- 22. Your tool is designed for general purpose light polishing of wood and metals.
- 23. Do not sand magnesium material due to the risk of fire.
- 24. **SAVE THESE INSTRUCTIONS. Refer to them frequently and use them to instruct others who may use this tool. If someone borrows this tool, make sure they have these instructions also.**

UNPACKING

⚠ WARNING: This power tool should NEVER be connected to the power source when you are assembling parts, making adjustments, installing or removing sandpaper, cleaning or when it is not in use. Disconnecting the sander will prevent accidental starting, which could cause serious personal injury.

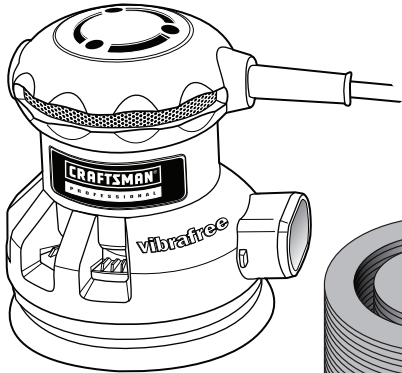
- 1. Remove the **sander** from the **carton** and inspect it carefully to make sure that no breakage or damage has occurred during shipping.
- 2. Do not discard any of the packing materials until all parts are accounted for.
- 3. Included with your sander is a **cyclonic dust box assembly**.
- 4. **15 sets of 5-in. hook and loop sandpaper, 5 sets of fine, 5 sets of medium, 5 sets of coarse grit.** Each set consist of 2 pieces, the outer “ring” disc and the inner “spot” disc.
- 5. **Dual Dust Port Vac Adapter** is included.
- 6. If any of the parts are damaged or missing (refer to PARTS LIST below), return the sander to your nearest Sears store or Craftsman outlet to have the sander replaced.

⚠ WARNING: If any parts are missing, **DO NOT** operate this power tool until the missing parts are replaced. Failure to do so could result in possible serious personal injury.

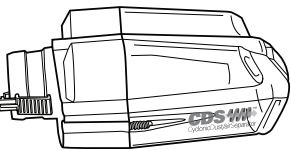
UNPACKING cont.

PARTS LIST (Fig. 1)

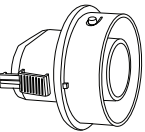
1. Sander



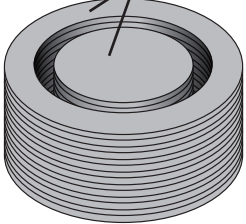
2. Cyclonic Dust Box



3. Vac Adapter with Dual Dust Ports



Set consists of outer ring disc and inner spot disc.



4. 15 hook and loop sanding discs sets;
5 fine,
5 medium,
5 coarse grit

5. Carry/Storage Case

6. Operator's Manual

DESCRIPTION

KNOW YOUR RANDOM ORBIT SANDER (Fig. 2)

NOTE: Before attempting to use your sander, familiarize yourself with all of the operating features and safety requirements.

Your Professional 5" Random Orbit Sander has a precision-built electric motor and it should be connected to a 120-volt, 60-Hz AC ONLY power supply (normal household current). **DO NOT** operate on direct current (DC). The large voltage drop will cause a loss of power and the motor will overheat. If the sander does not operate when plugged into correct 120-volt, 60-Hz AC ONLY outlet, check the power supply. This sander has a 10-ft., 2-wire power cord (no adapter needed).

This Random Orbit Sander has the following features:

Craftsman vibrafree™ Random Orbital Sanders are uniquely designed with two counter balanced pads that always move in opposite directions to each other. This design platform virtually cancels out the sander's vibration making this sander more comfortable and easy to use. It takes the vibration out of the sander and puts this energy to work sanding and removing material.

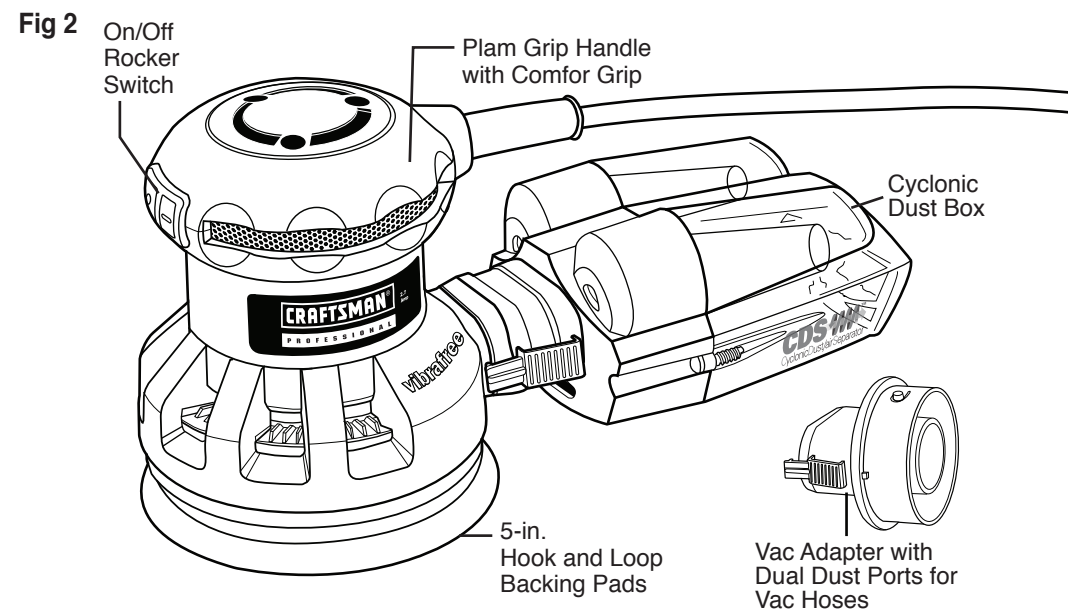
- 1. **Powerful 2.7 amp motor** provides the torque, power and durability for a variety of continuous sanding applications.
- 2. **12,000 OPM orbits per minute (no-load speed)** for fast material removal and a fine, smooth finish.
- 3. **Random orbital action** with 1/8-in. orbit diameter helps to provide a swirl free finish.
- 4. **Ergonomically designed Palm Grip Handle with Molded-in Comfort Grip** for maximum balance, control, gripping comfort and reduced operator fatigue.

* vibrafree is only a trademark and carries no explicit or implied claim as to the vibration reduction of the product.

DESCRIPTION cont.

This Random Orbit Sander has the following features cont.:

5. **On/Off rocker switch** is conveniently located for easy control. Sealed to keep out dust for long life.
6. **Hook and Loop Backing Pads** for easy attachment of hook and loop type sanding discs.
7. **High impact-resistant housing** helps protect tool from damage and reduces weight.
8. **Cyclonic Dust-Air Separator (CDS) Collection System** Dust Box features advanced air flow design with centrifugal force dust extraction that separates the dust particles from the air flow as they enter the box. The clean air then flows out of the box while the dust particles are trapped inside. This system provides more efficient dust collection than the standard dust bag system.
9. **Vac Adapter with Dual Dust Ports for Vac Hoses** Allows connection to 1¹/₄ or 2¹/₂-inch vac hose and wet / dry vac (sold separately).
10. **Permanently lubricated bearings** for smooth operation and long life.
11. Includes rugged **storage/carry case**.



PRODUCT SPECIFICATIONS

No-load Speed	12000 OPM orbits per minute
Rating	120 Volts, 60 Hz AC
Input	2.7 Amps
Orbit Diameter	1/8-inch
Sanding Disc Size	5-in. Diameter (outer ring disc and inner spot disc)
Paper Type	Hook and Loop Discs

ASSEMBLY

⚠ WARNING: Your sander should **NEVER** be connected to the power source when you are assembling parts, making adjustments, installing or removing sandpaper, cleaning or when it is not in use. Disconnecting the sander will prevent accidental starting, that could cause serious personal injury.

INSTALLING THE SANDPAPER (See Fig. 3)

ALWAYS inspect the sandpaper before installing. **DO NOT** use if broken or defective.

1. Unplug the sander.

⚠ WARNING: Failure to unplug the sander could result in accidental starting causing possible serious personal injury.

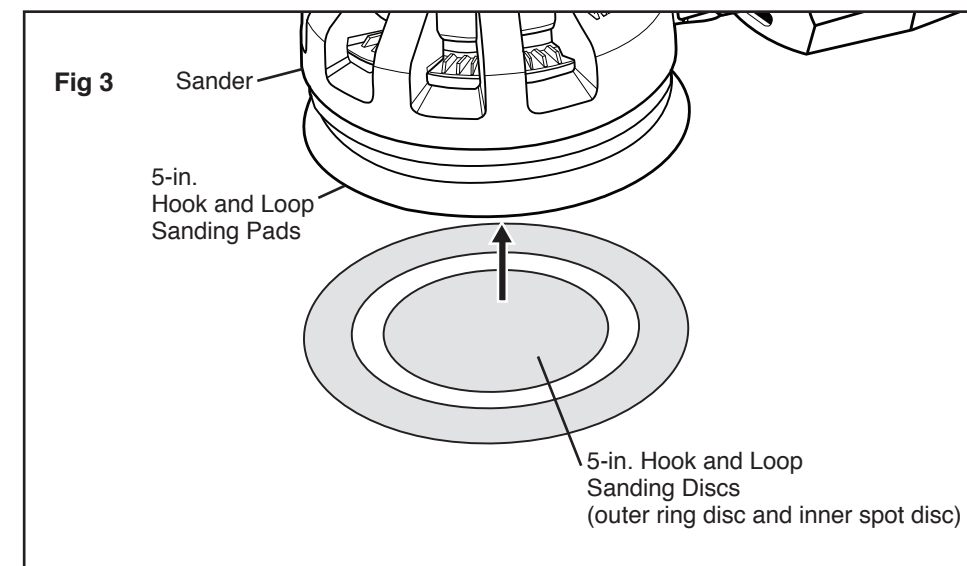
NOTE: Remove cyclonic dust box assembly when installing sandpaper. **ALWAYS** remember to reattach the cyclonic dust box assembly before beginning sanding operation (see page 14, Fig. 4).

2. Align the sanding discs with the hook and loop backing pad.

NOTE: The sanding discs must line up with the 2 backing pads in order for the dust collection feature of the sander to function properly.

3. Press the sanding discs against the backing pads as firmly as possible.

NOTE: For best adhesion, we recommend that you clean the backing pads and the sanding discs backing occasionally by brushing them lightly with a small brush.



ASSEMBLY cont.

DUST BOX / DUST COLLECTION

⚠ WARNING: Collected sanding dust from sanding surface coatings (polyurethane, linseed oil, etc.) can self-ignite in sander dust box or elsewhere and cause fire. To reduce risk, empty dust box frequently and strictly follow sander manual and coating manufacturer's instructions.

⚠ WARNING: When working on metal surfaces, DO NOT use the dust box or a vacuum cleaner because sparks are generated. Wear safety glasses and a dust mask. Due to the danger of fire, do not use your sander to sand magnesium surfaces. Do not use for wet sanding.

CYCLONIC DUST/AIR SEPARATOR (CDS) COLLECTION SYSTEM

Dust Box features advanced air flow design with centrifugal force dust extraction that separates the dust particles from the air flow as they enter the box. The clean air then flows out of the box while the dust particles are trapped inside. This system provides more efficient dust collection than the standard dust bag system.

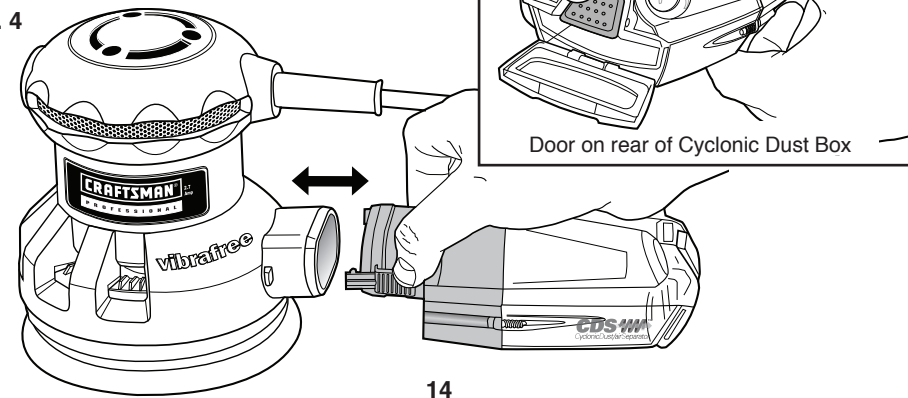
TO REMOVE AND EMPTY DUST BOX (See Fig. 4)

1. Unplug the sander.

⚠ WARNING: Failure to unplug the sander could result in accidental starting causing possible serious personal injury.

2. Locate two tab connectors on either side of cyclonic dust box and squeeze together. This disconnects dust box from sander.
3. Slide dust box off sander dust exhaust.
4. Cyclonic Dust box has black button on rear that pushes in to open a small door in rear of box (see Fig. 4a). Dust can be emptied from this door. Shake box aggressively to completely empty. To close door, simply push in until it clicks shut.
5. To reattach dust box, push box until two tab connectors on sides catch on to sander. You will hear them click.
6. Your sander is now ready to use.

Fig. 4



ASSEMBLY con.

TO REMOVE AND EMPTY DUST BOX cont.

NOTE: Empty dust box frequently so dust collection system works properly. For more efficient operation, empty dust box when it is no more than 1/2 full. This will allow better airflow through the box.

⚠ WARNING: Empty dust box before storage to help prevent possible fire hazard, especially when resin coating or linseed oil finishes have been sanded.

ATTACHING VAC HOSE TO THE DUAL DUST PORT ADAPTER (See Fig. 5, 5a and 5b)

When sanding for extended periods of time, you can easily attach your sander to a vac hose and wet/dry vac (both sold separately).

1. Unplug the sander.

⚠ WARNING: Failure to unplug the sander could result in accidental starting causing possible serious personal injury.

2. Locate two tab connectors on either side of cyclonic dust box and squeeze together. This disconnects dust box from sander.
3. Slide dust box off sander dust exhaust hole and remove box from sander.
4. Attach the Vac Adapter with Dual Dust Ports to the dust exhaust hole of the sander.
5. Attach either a 1 1/4 or 2 1/2-in vac hose onto the vac adapter's dual dust ports (see Fig. 5a and 5b).
6. Connect hose to wet / dry vac. Turn vac on while operating sander.

Fig. 5

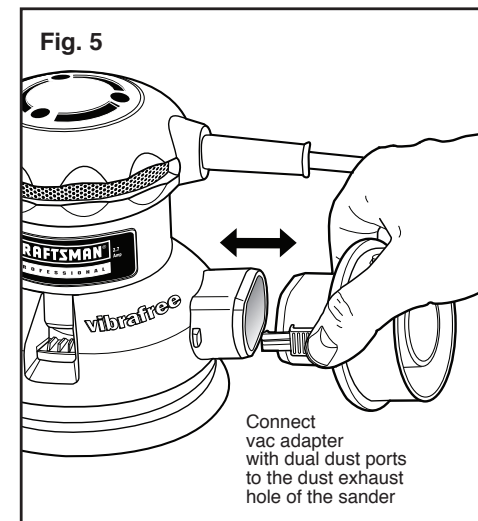


Fig. 5a

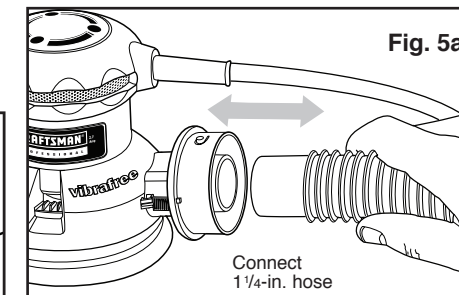
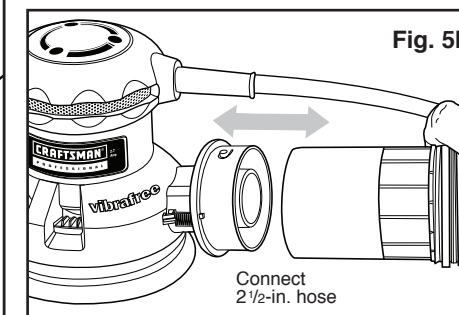


Fig. 5b



ASSEMBLY cont.

ATTACHING VAC HOSE TO THE DUAL DUST PORT ADAPTER cont.

NOTE: A standard 1 1/4-in. vac hose connection fits inside the smaller diameter hole inside the dual dust port adapter, while a standard 2 1/2-in. vac hose connection fits inside the larger hole of the dual dust port adapter

⚠ WARNING: When sander is not connected to vacuum, always install the Cyclonics dust box back on sander. Failure to do so could cause sanding dust or foreign objects to be thrown into the face or eyes, which could result in possible serious injury.

⚠ WARNING: Collected sanding dust from sanding surface coatings (polyurethane, linseed oil, etc.) can self-ignite in sander dust box or elsewhere and cause fire. To reduce risk, empty dust box frequently and strictly follow sander manual and coating manufacturer's instructions.

⚠ CAUTION: When working on metal surfaces, DO NOT use the dust box or a vacuum cleaner because sparks are generated. Wear safety glasses and a dust mask. Due to the danger of fire, do not use your sander to sand magnesium surfaces. Do not use for wet sanding.

OPERATION

Before attempting to use any tool, be sure to familiarize yourself with all the operating features and safety instructions.

⚠ WARNING: IF ANY PARTS ARE MISSING, DO NOT OPERATE YOUR SANDER UNTIL THE MISSING PARTS ARE REPLACED. FAILURE TO FOLLOW THIS RULE COULD RESULT IN SERIOUS PERSONAL INJURY.

⚠ WARNING: DO NOT let familiarity with your sander make you careless. Remember that a careless fraction of a second is sufficient to cause severe injury.

ON/OFF ROCKER SWITCH (see Fig. 6)

This switch is sealed to help keep out dust for a longer life and is conveniently located near the front of the palm grip handle.



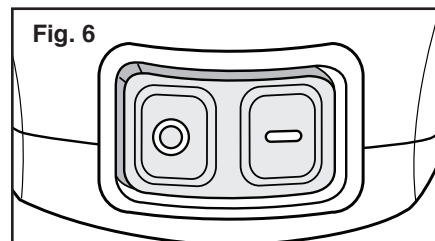
Start the sander by pushing in the part of the switch with the . Let the motor build to its maximum speed before starting sanding operation. To turn sander off, push side of switch with the .

Fig. 6



OPERATION cont.

APPLICATIONS

Only use your sander for the applications listed below.

- Sanding wood surfaces with various grits of sandpaper.
- Removing rust from steel surfaces with special sandpaper.

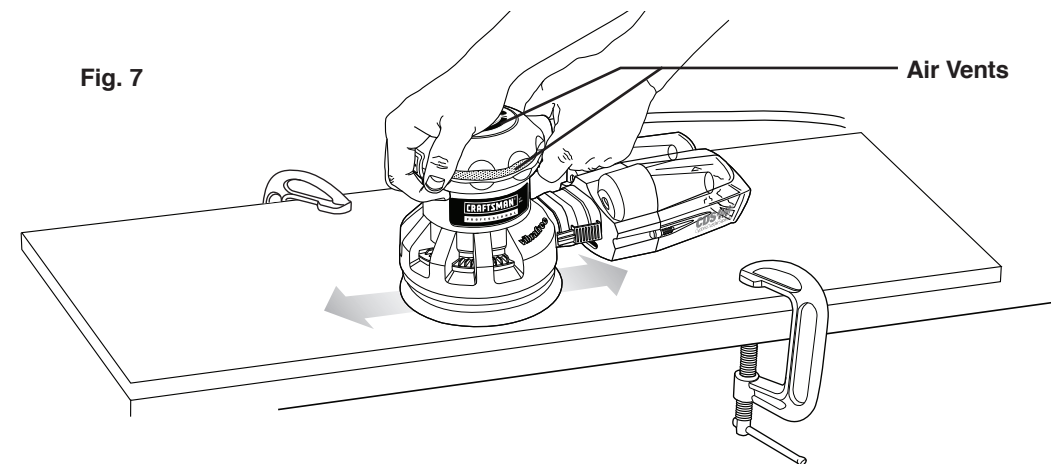
⚠ WARNING: Due to the danger of fire, DO NOT use your sander to sand magnesium surfaces. DO NOT use for wet sanding.

⚠ WARNING: ALWAYS clamp the workpiece. An unsecured workpiece could be thrown towards the operator, causing serious injury.

⚠ CAUTION: When working on metal surfaces, DO NOT use the dust box or a vacuum cleaner because sparks are generated. Wear safety glasses and a dust mask. Due to the danger of fire, do not use your sander to sand magnesium surfaces. Do not use for wet sanding.

⚠ CAUTION: When gripping the sander during use, ALWAYS be careful not to cover the air vents with your hands (see Fig. 7).

Fig. 7



USING YOUR SANDER (see Fig. 7)

1. **ALWAYS** clamp and secure the workpiece to prevent it from moving under sander.
2. Place sander on workpiece so that all of sanding disc surface is in contact with workpiece.
3. Start the sander and move it slowly over workpiece, making successive passes in parallel lines, circles, or crosswise movements.

OPERATION cont.

USING YOUR SANDER cont. (see Fig. 7 on page 17)

4. Upon completion of sanding operation, turn sander off and wait until sanding disc comes to a complete stop before removing from workpiece.
5. Extended periods of sanding may tend to overheat the motor. If this occurs, turn sander off and wait until sanding disc comes to a complete stop, then remove it from workpiece. Remove sanding disc, then turn sander on and run it free without a load (off the workpiece) to cool the motor.

SANDING TIPS

1. **DO NOT force the sander.** The weight of the sander supplies adequate pressure on the workpiece. Let the sander and the sandpaper's grit do the work.
 - Applying additional pressure will only slow down the motor, wear the sandpaper out faster and reduce the sander's orbital speed.
 - Excessive pressure will overload the motor and cause possible damage to the sander from the motor overheating.
 - Excessive pressure will also result in a poor quality finish.
2. Any existing finish or resin on wood may soften from the heat of the friction and cause the sandpaper to load-up faster.
3. Inspect sandpaper frequently and change paper when grit is worn and not able to perform properly.
4. **DO NOT** sand in one spot for too long a time because the sander's rapid action may remove too much material and make the surface uneven.

SELECTING THE RIGHT SANDPAPER

Selecting the correct grit and type of sandpaper is an extremely important decision that will allow you to achieve the best quality sanding finish.

1. Aluminum oxide, silicon carbide and other synthetic abrasives are best for power sanding.
2. Natural abrasives such as flint and garnet are too soft for economical use in power sanding.
3. Coarse grit will remove the most material and finer grit will give you the best finish in all sanding operations.
4. The condition of the surface to be sanded will determine which grit will do the job.
5. **If the surface is rough:**
 - Start with a coarse grit and sand until the surface is uniform.
 - Then use medium to remove any scratches left by the coarse grit.
 - Then use a finer grit for finishing the surface.

NOTE: ALWAYS continue sanding with each grit until the surface is uniform.

NOTE: DO NOT use the sander without sandpaper. This will damage the cushion.

⚠ WARNING: DO NOT wear loose clothing or jewelry when operating sander. They could get caught in moving parts, causing serious injury. Keep head away from sander and sanding area. Hair could be drawn into sander, causing serious injury.

OPERATION cont.

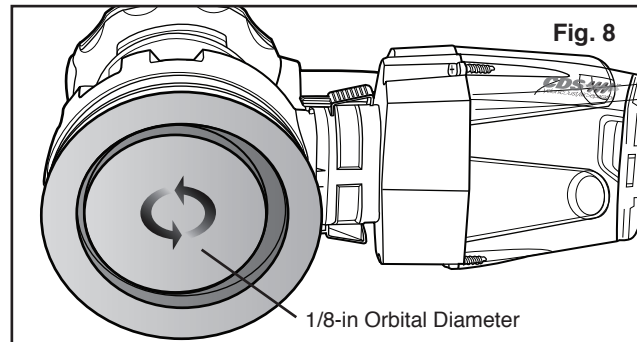
⚠ WARNING: Empty dust box before storage to help prevent possible fire hazard, especially when resin coating or linseed oil finishes have been sanded.

NOTE: Empty dust box frequently when sanding so dust collection system works properly.

ORBITAL MOTION (see Fig. 8)

As shown in Figure 8, the orbit of the sander is 1/8-in. in diameter so the sandpaper moves in tiny circles at very high speed, allowing the sander to move easily. This orbital action duplicates a "hand sanding" motion for more aggressive sanding as you push the sander forward. This powerful orbital action is ideal for heavy-duty sanding applications, such as:

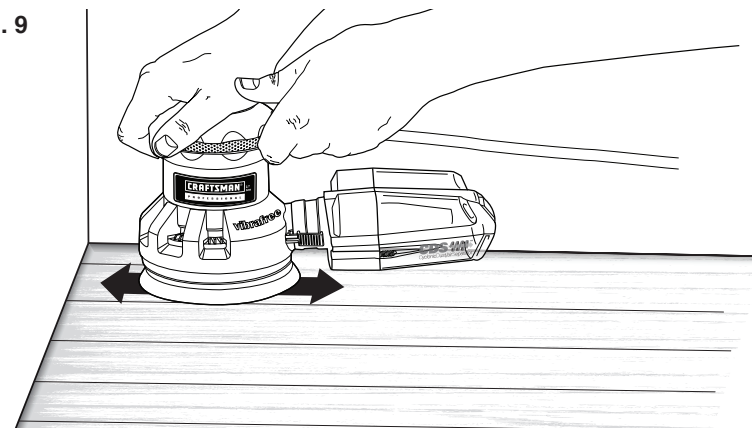
1. Removing old finishes
2. Smoothing rough wood
3. Sanding stock down to required dimensions
4. Finishing surfaces that are to be painted.



FLUSH SANDING (See Fig. 9)

Flush sanding can be performed with the front edge of this sander. Upon completion of sanding operation, turn sander off and wait until sanding disc comes to a complete stop before removing from workpiece.

Fig. 9



MAINTENANCE

⚠ WARNING: To ensure safety and reliability, repairs, maintenance and adjustments **MUST** be performed by a qualified service technician at a Sears Service Center.

⚠ WARNING: For your safety, **ALWAYS** turn off switch and unplug sander from the power source before performing any maintenance or cleaning.

It has been found that electric tools are subject to accelerated wear and possible premature failure when they are used to work on fiber glass boats and sports cars, wallboard, spackling compounds or plaster. The chips and grindings from these materials are highly abrasive to electrical tool parts, such as bearings, brushes, commutators, etc. Consequently, it is not recommended that this tool be used for extended work on any fiberglass material, wallboard, spackling compound or plaster. During any use on these materials, it is extremely important that the tool is cleaned frequently by blowing with an air jet.

⚠ WARNING: Always wear safety goggles or safety glasses with side shields during power tool operations, or when blowing dust. If operation is dusty, also wear a dust mask.

ROUTINE MAINTENANCE

⚠ WARNING: **DO NOT** at any time let brake fluids, gasoline, petroleum-based products, penetrating oils, etc. come in contact with plastic parts. Chemicals can damage, weaken or destroy plastic, which may result in serious personal injury.

Periodic maintenance allows for long life and trouble-free operation. A cleaning and maintenance schedule should be maintained. As a common preventive maintenance practice, follow these recommended steps:

⚠ WARNING: For your safety, **ALWAYS** turn off switch and unplug sander from the power source before performing any maintenance or cleaning.

1. When work has been completed, clean the tool to allow smooth functioning of the tool over time. Clean the tool with compressed air.
2. Use clean damp cloths to wipe the tool. Use a brush to brush off and clean the sander's Backing Pad.
3. Keep the motor air openings free from oil, grease and sawdust or woodchips, and store tool in a dry place.

LUBRICATION

Your Craftsman® Professional Orbital Sander has been properly lubricated and is ready to use. No further lubrication is needed under normal operating conditions. All bearings in the sander are lubricated for the life of the tool.

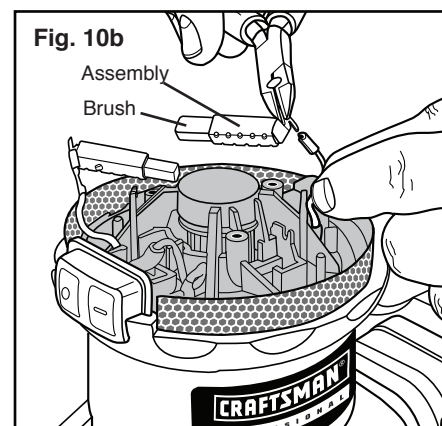
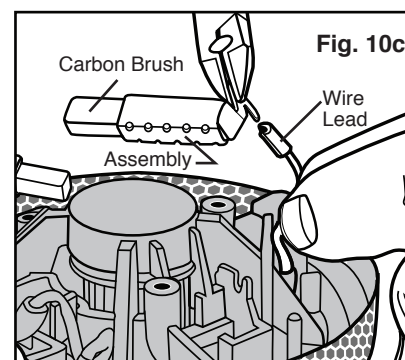
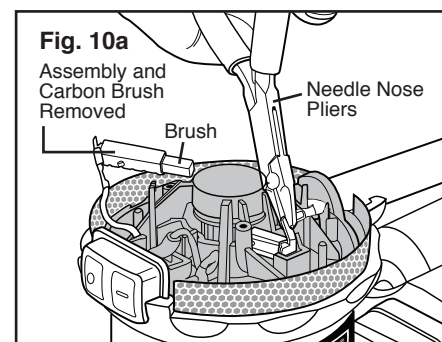
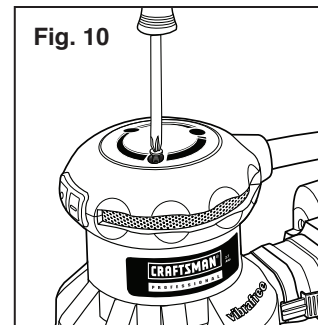
MAINTENANCE cont.

BRUSH REPLACEMENT (see Fig. 10, 10a, 10b and 10c)

1. Unplug the sander.

⚠ WARNING: Failure to unplug the sander could result in accidental starting causing possible serious personal injury.

2. Remove (3) screws from top cover of sander and remove top cover (see Fig. 10).
3. Locate the (2) Carbon Brush / Brush Holder Assemblies (see Fig. 10a). They are connected to blue wire lead terminals and are in position on each side of the armature.
4. Carefully lift these (2) assemblies (see Fig. 10a and 10b) out of their positions (**NOTE: Remember how they are positioned so that you can put them back in position correctly.**)
5. Check the ends of the carbon brushes (see Fig. 10b) for wear. If either brush has less than 1/4-in. length of carbon remaining, replace both. **DO NOT REPLACE ONE SIDE WITHOUT REPLACING THE OTHER.**
6. To replace assemblies, disconnect the blue wire lead terminals from the assemblies (see Fig. 10c), attach new assemblies to the lead terminals and place the assemblies back into their original positions next to the armature. Make sure the curvature of the end of the brushes matches the curvature of the armature and that the brushes move freely in brush holder assemblies.
7. Reassemble the top cap with the (3) screws and do not overtighten.



ACCESSORIES

⚠ WARNING: The use of attachments or accessories that are not recommended for this tool might be dangerous and could result in serious injury.

Sears and other Craftsman® outlets offer a selection of Craftsman Professional Random Orbit Sander accessories designed for all your sanding applications.

5-inch, Hook and Loop Sanding Disc Sets, come in fine, medium and coarse grits. Each set consist's of a outer ring disc and a inner spot disc.

Visit your local Sears store or other Craftsman outlets or shop sears.com/craftsman for all of the accessories for your random orbital sander.

NEED MORE HELP?

You'll find the answer and more on managemyhome.com – for free!

- Find this and all your other product manuals online.
- Get answers from our team of home experts.
- Get a personalized maintenance plan for your home.
- Find information and tools to help with home projects.

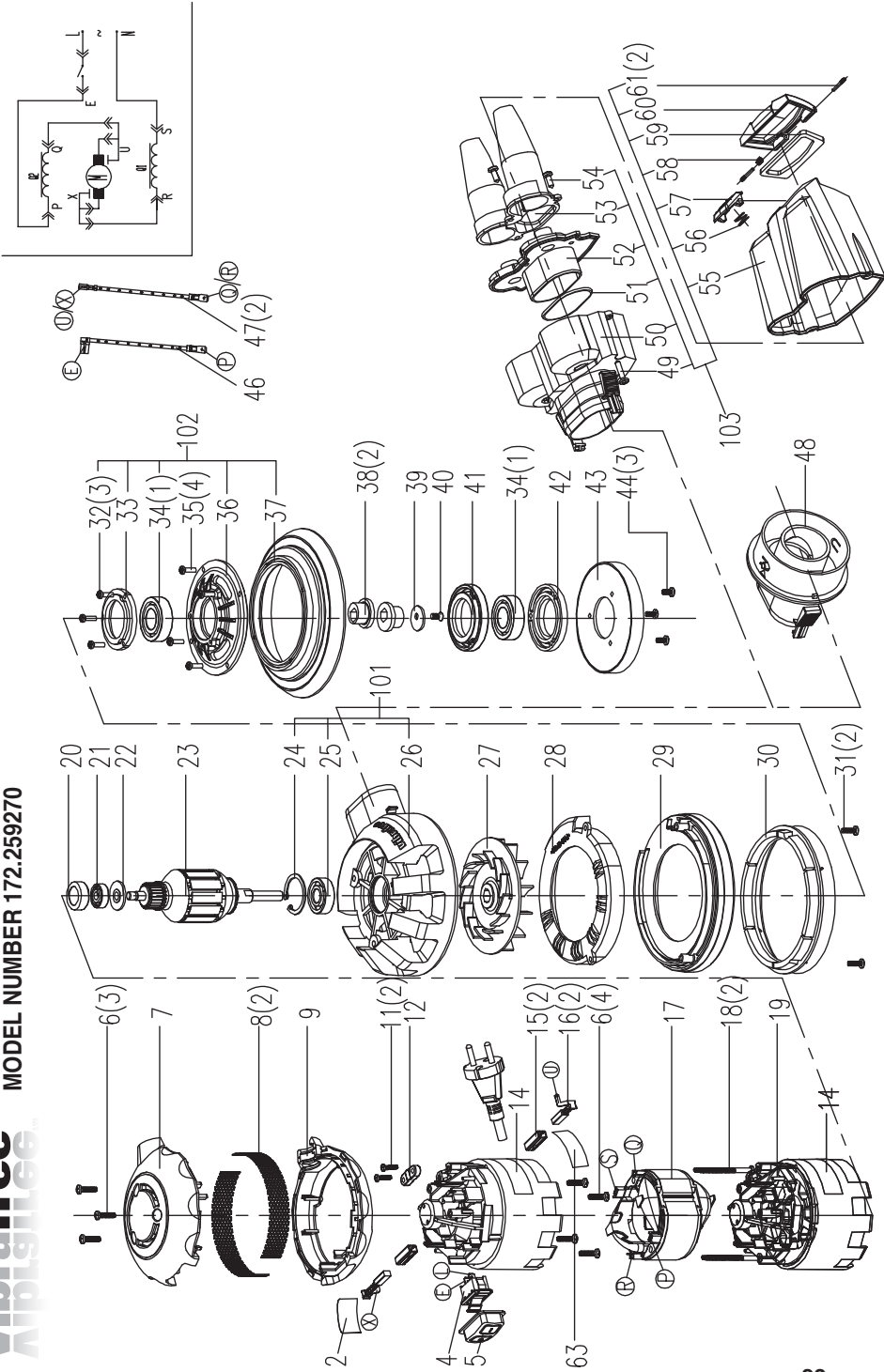
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brought to you by Sears

PARTS LIST

**2.7 Amp/5-in. Diameter
Cyclonic Dust-Air Separator (CDS)
Collection System Orbital Sander**
MODEL NUMBER 172.259270

vibrafree™
active canceling technology

The model number will be found on the nameplate of the Random Orbital Sander. Always mention the model number when requesting parts and service for your tool.



PARTS LIST cont.

2.7 Amp/5-in. Diameter
Cyclonic Dust-Air Separator (CDS)
Collection System Orbital Sander
MODEL NUMBER 172.259270

The model number will be found on the nameplate of the Random Orbital Sander. Always mention the model number when requesting parts and service for your tool.

Item No.	Parts No.	Part Description	Qty.
2	PES300U-2	Rated label	1
4	PES300U-4	Switch	1
5	PES300U-5	Switch Cover	1
6	PES300U-6	Screw ST3.9D16	7
7	PES300U-7	Top cover	1
8	PES300U-8	Wind grille	2
9	PES300U-9	Lower cover	1
11	PES300U-11	Screw ST3.9D13	2
12	PES300U-12	Cord clamp	1
13	PES300U-13	Power cord	1
14	PES300U-14	Housing	1
15	PES300U-15	Brush Holder	2
16	PES300U-16	Brush Set	2
17	PES300U-17	Stator	1
18	PES300U-18	Screw ST4.2D40	2
19	PES300U-19	Baffle	1
20	PES300U-20	Bearing sleeve	1
21	PES300U-21	Ball bearing 606-2Z	1
22	PES300U-22	Insulating sheath	1
23	PES300U-23	Rotor	1
101	PES300U-101	Pedestal Set	1
24	PES300U-24	Retaining Ring 26	1
25	PES300U-25	Ball bearing 6000-2RS	1
26	PES300U-26	Pedestal	1
27	PES300U-27	Fan	1
28	PES300U-28	Wind baffle	1
29	PES300U-29	Fence	1
30	PES300U-30	Brake Ring	1
31	PES300U-31	Screw M3D25	2
102	PES300U-102	Outer base plate set	1
32	PES300U-32	Screw M3D10	3

Item No.	Parts No.	Part Description	Qty.
33	PES300U-33	Outer bracket cover	1
34	PES300U-34	Ball bearing 6002-2RS	2
35	PES300U-35	Screw M3D10	4
36	PES300U-36	Outer bracket seat	1
37	PES300U-37	Outer base pan	1
38	PES300U-38	Spindle	2
39	PES300U-39	Washer	1
40	PES300U-40	Screw M4D10	1
41	PES300U-41	Inner bracket seat	1
42	PES300U-42	Inner bracket cover	1
43	PES300U-43	Inner base pan	1
44	PES300U-44	Screw M3D14	3
46	PES300U-46	Inner Wire 60	1
47	PES300U-47	Inner Wire 40	2
48	PES300U-48	Cleaner adapter	1
103	PES300U-103	dust collector box assembly	1
49	PES300U-49	Screw ST3.5D16	2
50	PES300U-50	Dust port	1
51	PES300U-51	Airproof strip	1
52	PES300U-52	Dust proof board	1
53	PES300U-53	Cyclone Duct	1
54	PES300U-54	Screw ST3.5D10	3
55	PES300U-55	Dust collector	1
56	PES300U-56	Compression spring	1
57	PES300U-57	Button	1
58	PES300U-58	Torsional spring	1
59	PES300U-59	Airproof patch	1
60	PES300U-60	Rear cover	1
61	PES300U-61	Pin	2
63	PES300U-63	Brand label	1